[54] **TECHNIQUE FOR EFFICIENTLY ALLOCATING BANDWIDTH TO MULTIMEDIA CALLS IN A COMMUNICATIONS SYSTEM**

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[56] **References Cited**

U.S. PATENT DOCUMENTS

5,130,932	7/1992	Ash et al.	370/468
5,132,966	7/1992	Hayano et al.	370/468
5,140,938	8/1992	Jurkevich et al.	370/468
5,301,191	4/1994	Otani	370/468
5,497,504	3/1996	Acampora et al. .	
5,638,363	6/1997	Gittins et al.	370/468
5,673,253	9/1997	Shaffer	370/468

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[57] **ABSTRACT**

In a multimedia communications system where bandwidth of an access facility is limited, the bandwidth is partitioned into three bands dedicated to audio, video and data traffic, respectively, in accordance with blocking probabilities associated with the respective media types. The value of each blocking probability is selected pursuant to the relative importance of the associated media type in a multimedia service. With the blocking probabilities in place, the dominance of traffic of a particular media type, which may be relatively unimportant in the service, would not cause blocking of traffic of other media types, which may be relatively important.
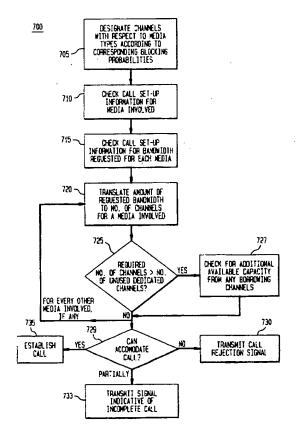
24 Claims, 5 Drawing Sheets